

Everything I Ever Wanted To Know
About Beginning Business
Intelligence with SQL Server 2005
Part One

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COMFRAME

Agenda

- Introductions
- Ok, Maybe not Everything
- Dimensional Modeling
- ETL
- Session Break
- OLAP
- Reporting
- Analysis (Services) with Excel

ComFrame Snapshot

- Founded 1997
- ComFrame Practices:
 - *PA2E*- Precision Architecture and Application Engineering
 - *CP2M*- Corporate Planning and Performance Management
 - *I2CM*- Information Integration and Collaboration Management
 - *BP2M*- Business Process and Performance Management
 - *EP2M*- Enterprise Project and Portfolio Management
- Growth and innovation awards
2000-2005 (Smithsonian, Inc.,
Birmingham Business Journal)
- 330+ successful projects
- 100+ employees
- Offices in Birmingham, Nashville, Beijing China

Microsoft®
GOLD CERTIFIED
Partner



St. Vincent's



• Healthcare

- St. Vincent's Hospital
- AIM Healthcare
- Children's Hospital of AL
- UAB Health System
- Emageon
- HealthStream
- CSC Healthcare

• Financial

- Compass Bank
- Colonial Bank

• Energy & Utilities

- Energen

• Insurance

- Infinity
- ProAssurance
- Vesta Insurance
- BC&BS of Alabama
- McGriff, Siebels & Williams

• Construction

- Brasfield & Gorrie
- BL Harbert
- The Concrete Company

• Software Companies

- McLeod Software
- EPL
- SunGard OmniVision

Why ComFrame

- Not an Outsourcing Company
- Business driven engagements
- Helps IT become a strategic asset, not a cost center
- Senior level and experienced staff
- Deep understanding of the topics we are presenting to you today
- Leverage best practices and intellectual property.

- Barry Ralston aka “BI Barry”
 - Recent (2004 – present) SQL Server
 - Honda
 - HealthStream
 - HospiScript
 - History (1992-2004) Oracle
 - Honda
 - MCI
 - BellSouth
 - UPS Worldwide Logistics
 - Bank of Hawaii

SQL Server 2005 Business Intelligence



- Data acquisition from source systems and integration
- Data transformation and synthesis

- Data enrichment, with business logic, hierarchical views
- Data discovery via data mining

- Data presentation and distribution
- Data access for the masses

Dimensional Modeling Process

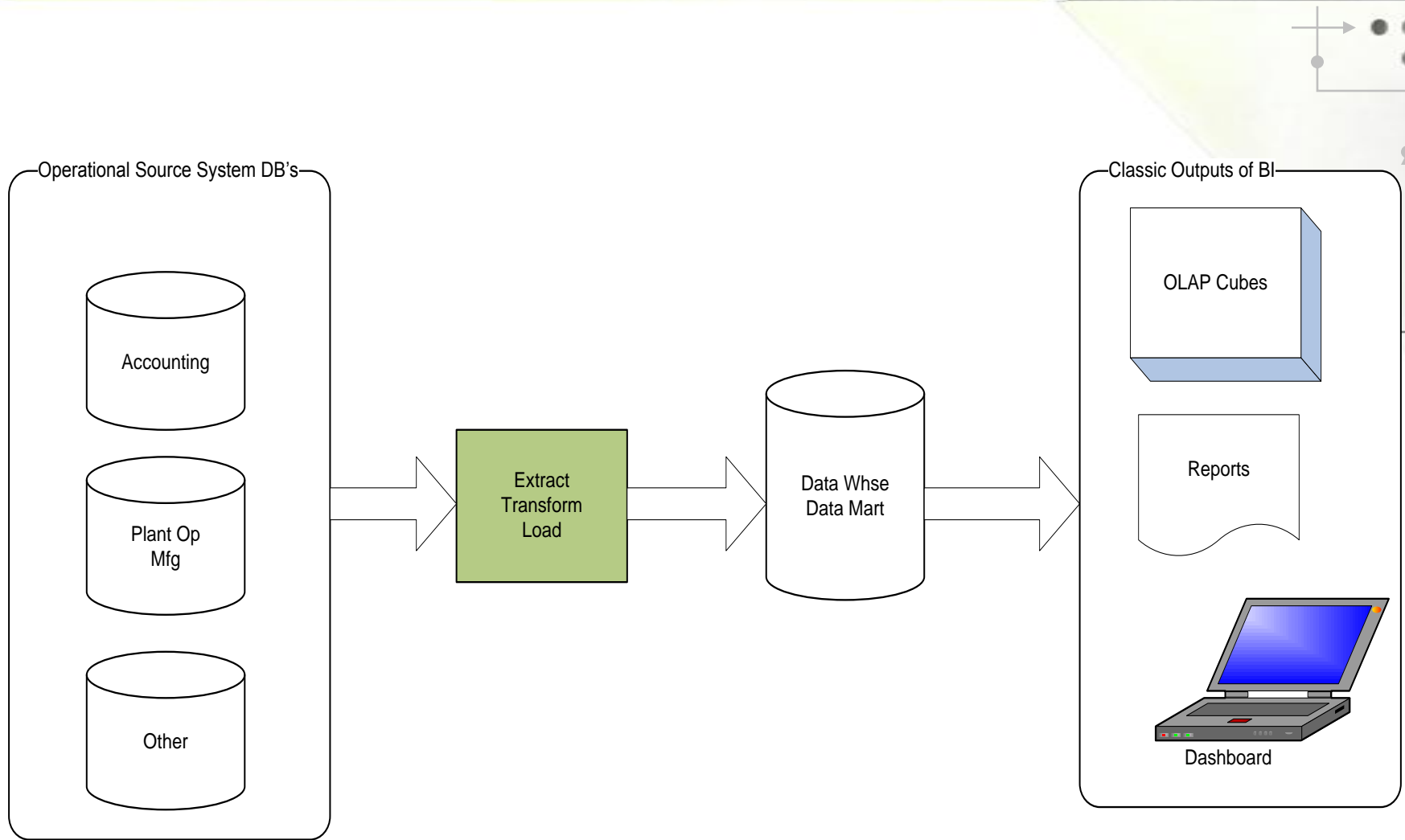
Identify the business process

Choose (declare) the Grain of the fact table

Choose the dimensions

Choose the facts

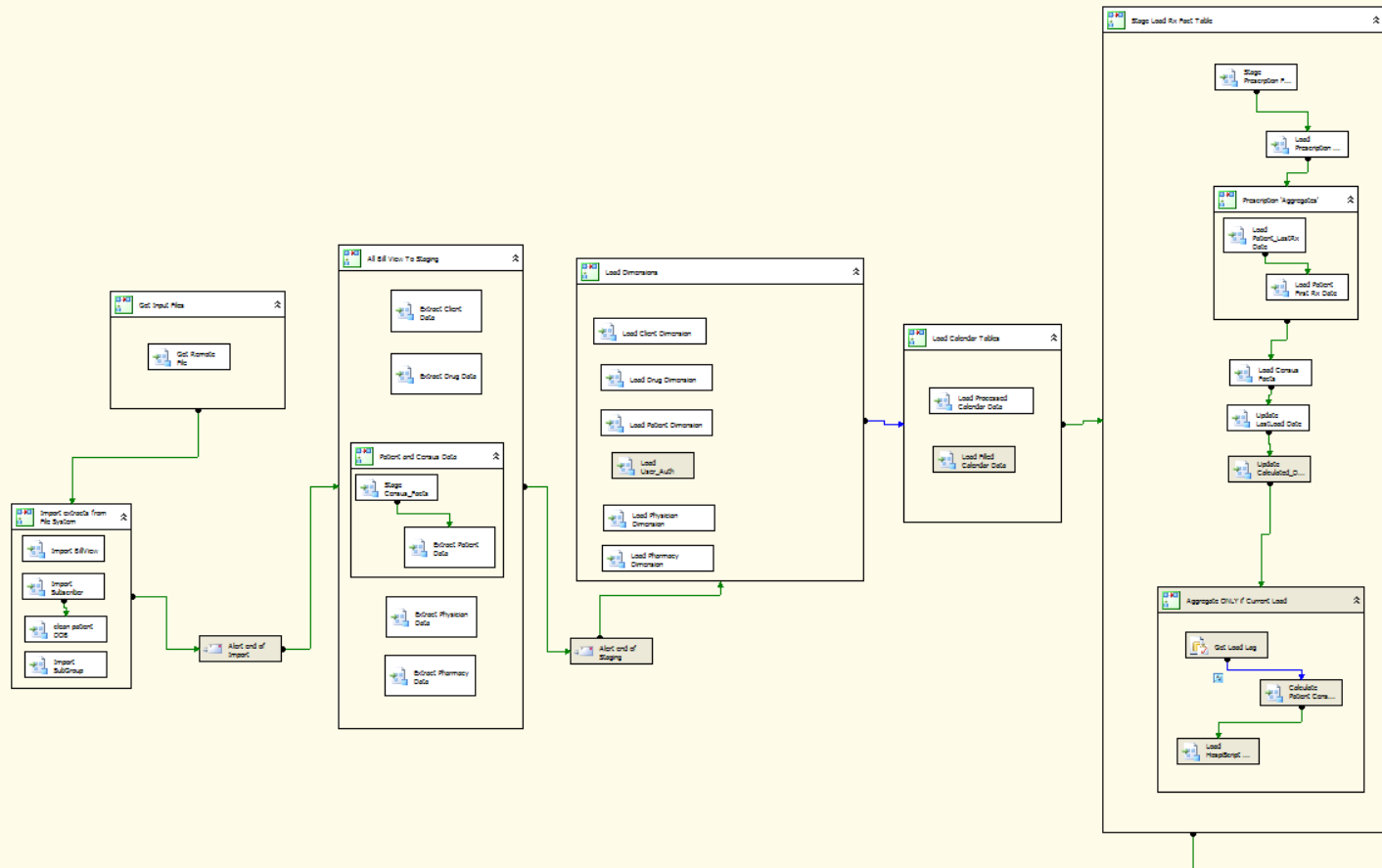
Extract, Transform and Load (ETL)



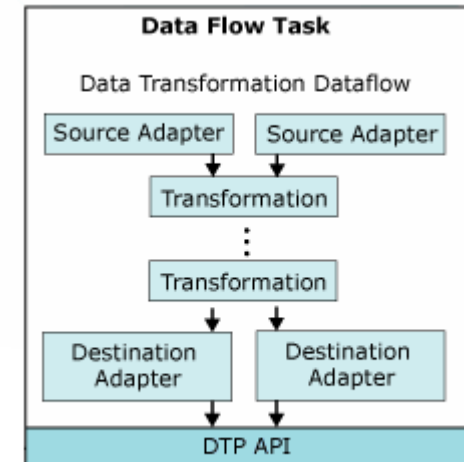
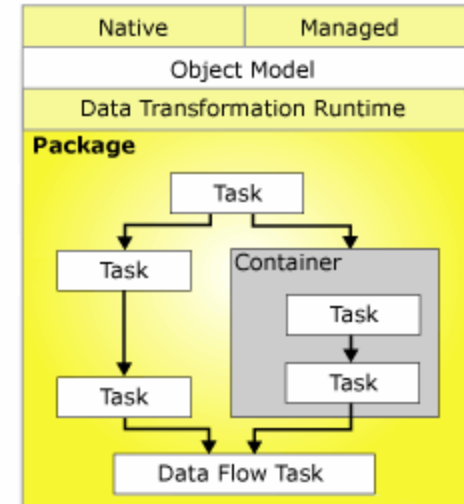
SSIS Packages

Master_dimension.dtsx [Design]

Control Flow Data Flow Event Handlers Package Explorer

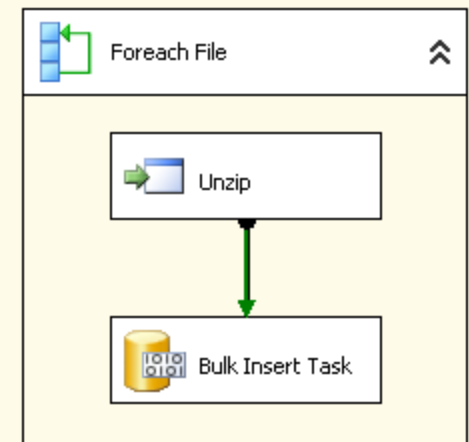
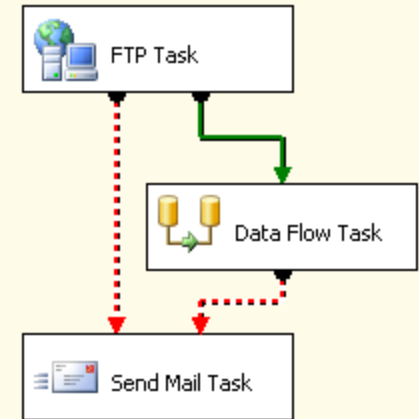


- Control Flow (Runtime)
 - A parallel workflow engine
 - Executes containers and tasks
- Data Flow (“Pipeline”)
 - A special runtime task
 - A high-performance data pipeline
 - Applies graphs of components to data movement
 - Component can be sources, transformations or destinations
 - Highly parallel operations possible



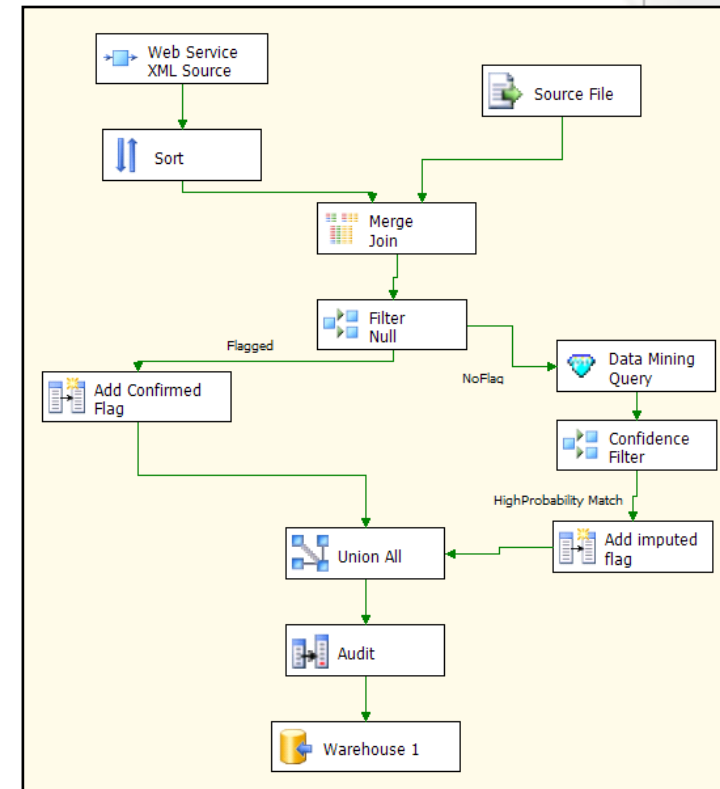
SSIS Packages – Control Flow

- Package
 - Unit of deployment & execution
 - One or more tasks
- Control Flow (work flow)
 - Tasks: SQL, FTP, Email, MSMQ, Script, custom
 - Atomic - individually successful or unsuccessful
 - Disabled or enabled
 - Constraint relationships between tasks
- Loops & Containers



SSIS Packages - Data Flow

- Pipeline architecture
- High performance data movement
 - Execution plan maximizes concurrency
 - Reduced memory copies
 - Highly parallel
- Arbitrary number of:
 - Inputs, Transforms, Outputs
 - Error flows
- Rich set of transforms
 - Extensible architecture
 - Partner ecosystem




ETL Demo



Part 1 – Questions

...and Answers...





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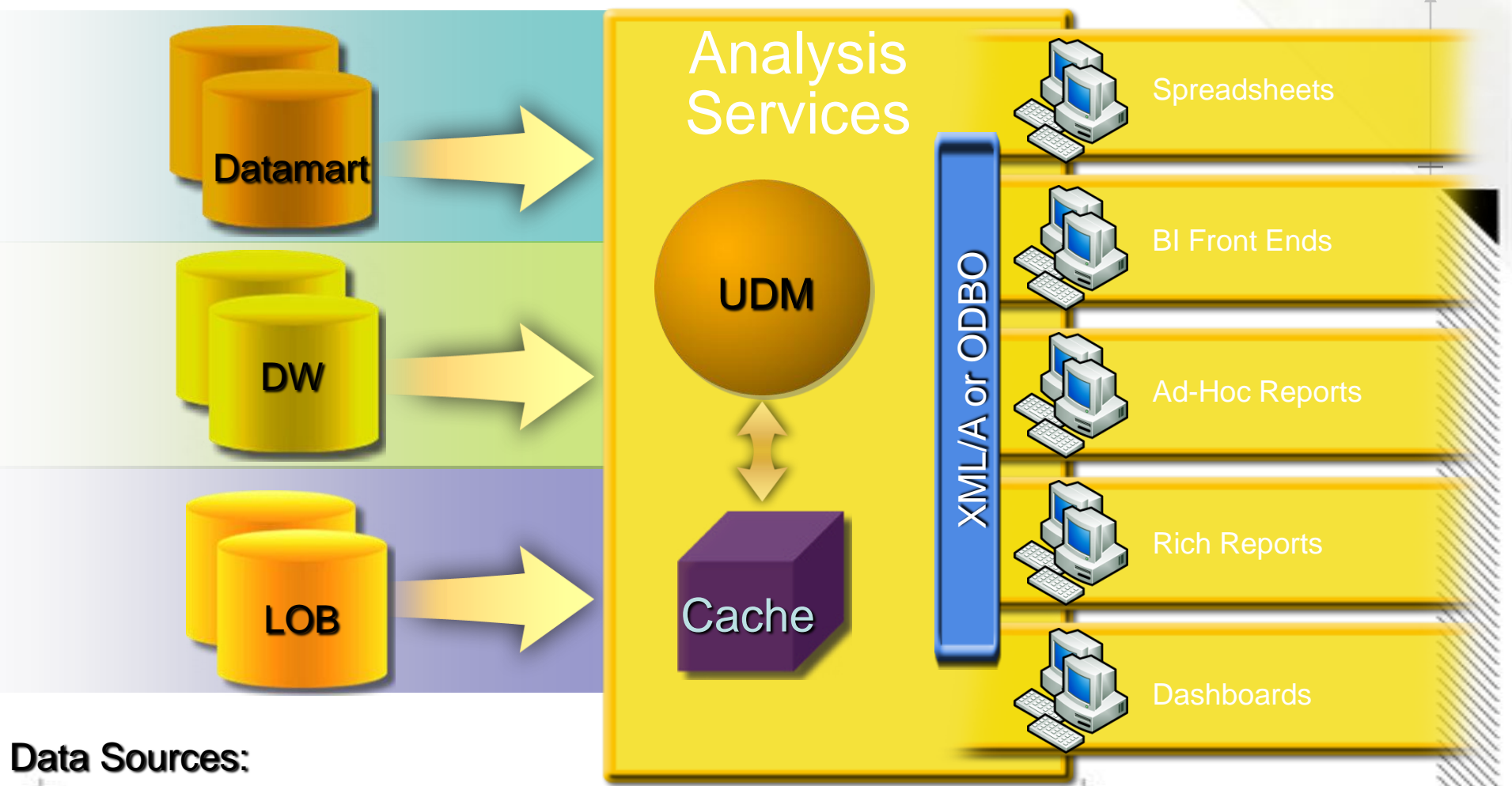
COMFRAME



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SQL Server 2005 Analysis Services



Data Sources:
SQL Server, Oracle, DB2, Teradata, others

- One version of the truth
- Data enrichment and advanced analytics
- Real-time and high performance
- Mission critical

- Multiple enterprise data sources
- Single business view of the data
- Common business terminology and definitions
- Common data navigation experiences
- One version of business analytics, available in every OLAP browser, reporting server, or BI application

+ SQL Server 2005 Analysis Services

+ Data Enrichment And Advanced Analytics

- One version of the truth
- Data enrichment and advanced analytics
- Real-time and high performance
- Mission critical

- Advanced business logic, rules and calculations
- Key Performance Indicators
- Data mining for unique insights
- Predictive analytics for competitive edge
- What-if modeling

- One version of the truth
- Data enrichment and advanced analytics
- Real-time and high performance
- Mission critical

- Super fast response time to end user queries
- Isolate back-end sources from exhaustive users queries
- Real time data access

Mission Critical

- One version of the truth
 - Data enrichment and advanced analytics
 - Real-time and high performance
 - Mission critical
- Reliable and Available
 - Designed for 7/24/365
 - Manageable
 - Easy to have the system do what you want
 - Secure
 - By design, by default
 - Scalable
 - Large data volume, number of users, complex models and calculations

OLAP Demo



Reporting



Reporting Services

• Scalable Server

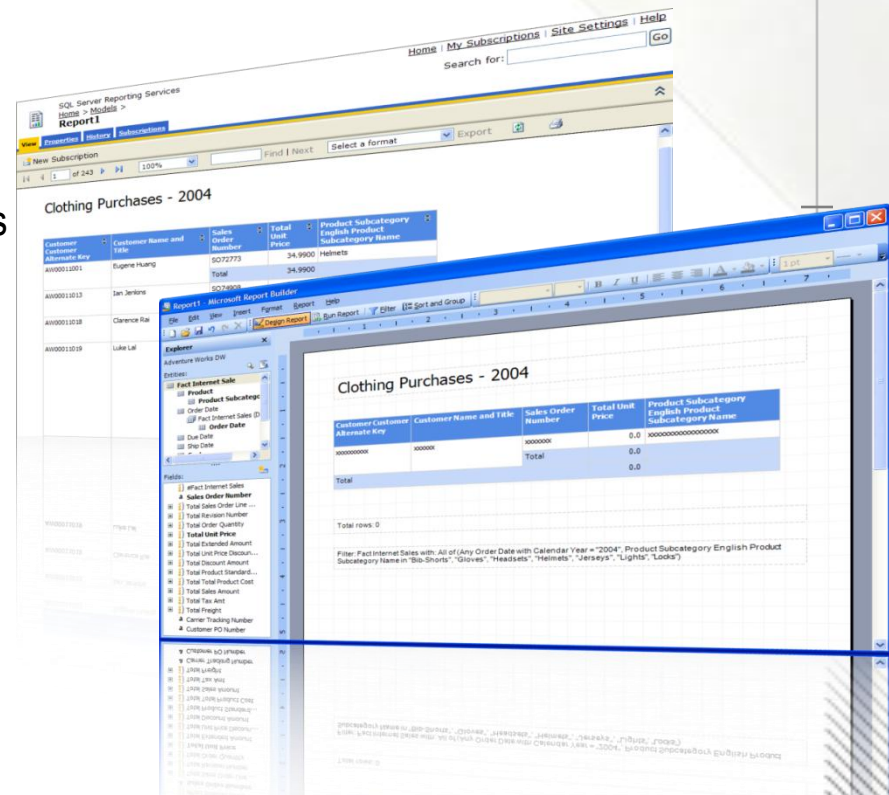
- Rich, Enterprise Reporting Platform (static and interactive)
- Multiple data sources with multiple delivery options
- Scalable, manageable and embeddable Web Services architecture
- Scheduling, Snapshots, Caching, more...

• Advanced Authoring Tools

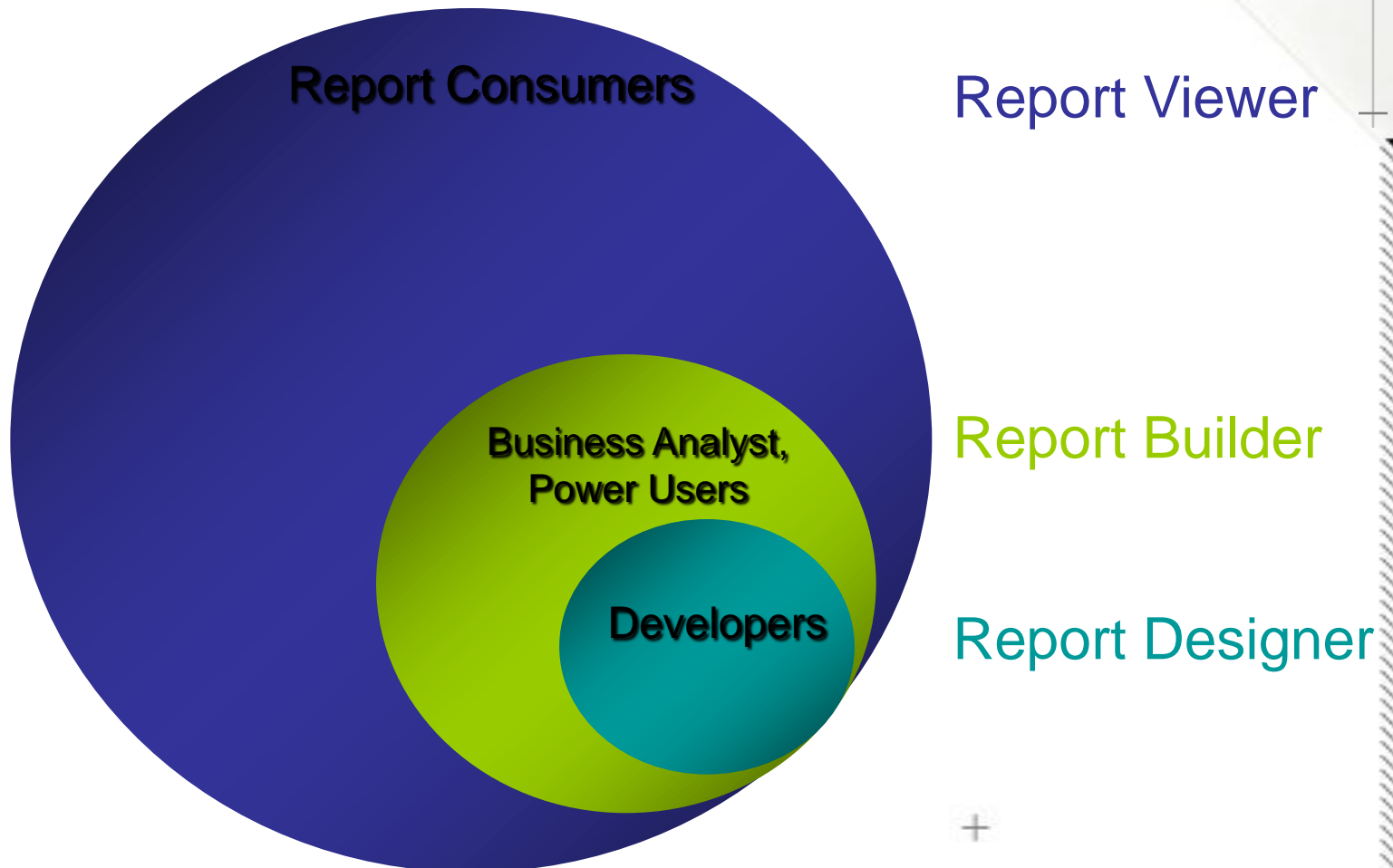
• End-user, Ad Hoc Reporting

• Strong Management Story

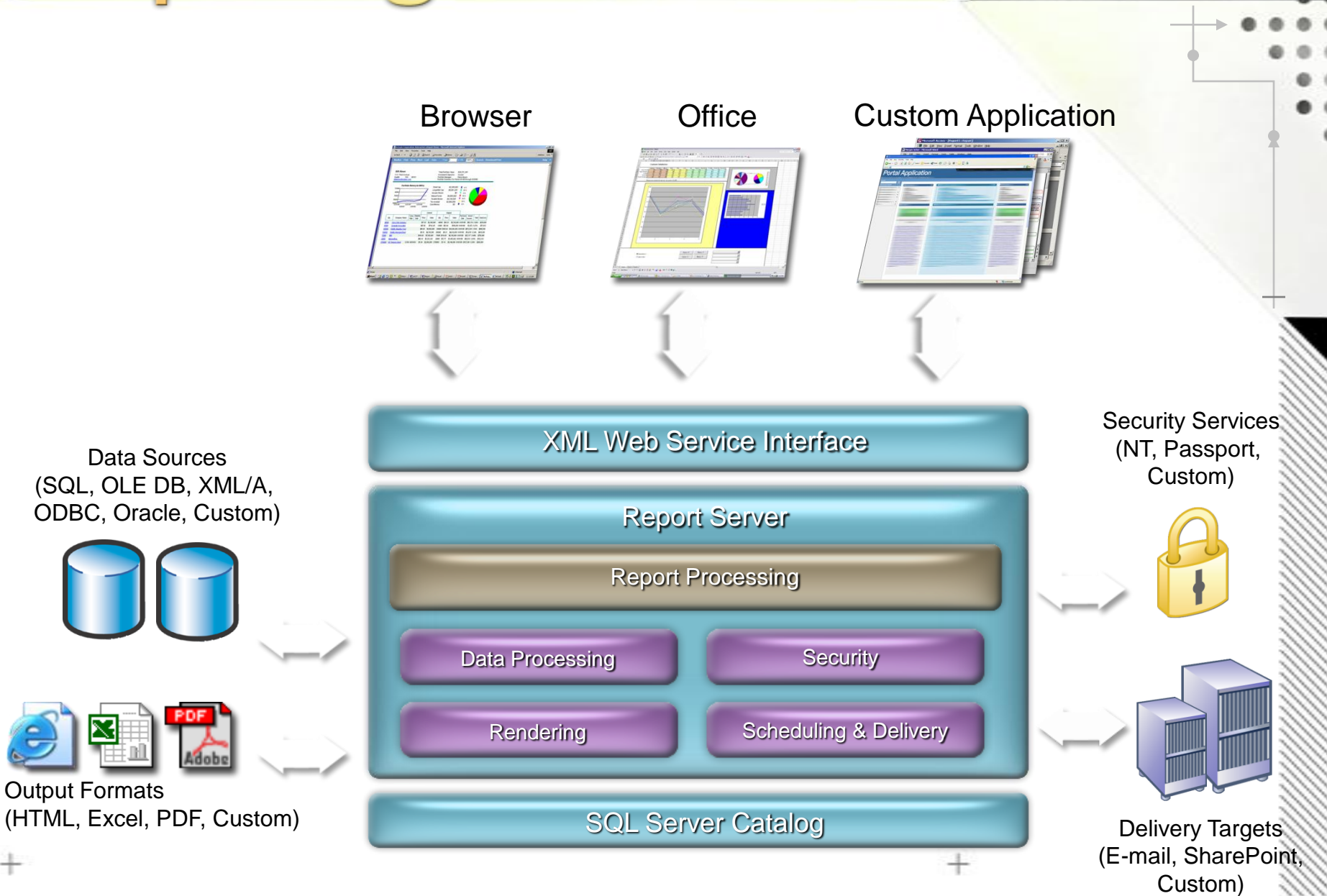
- SOAP Web Service APIs
- Report Manager portal
- Extensible security model
- Integration with AS, IS, management tools



Reporting Services Users

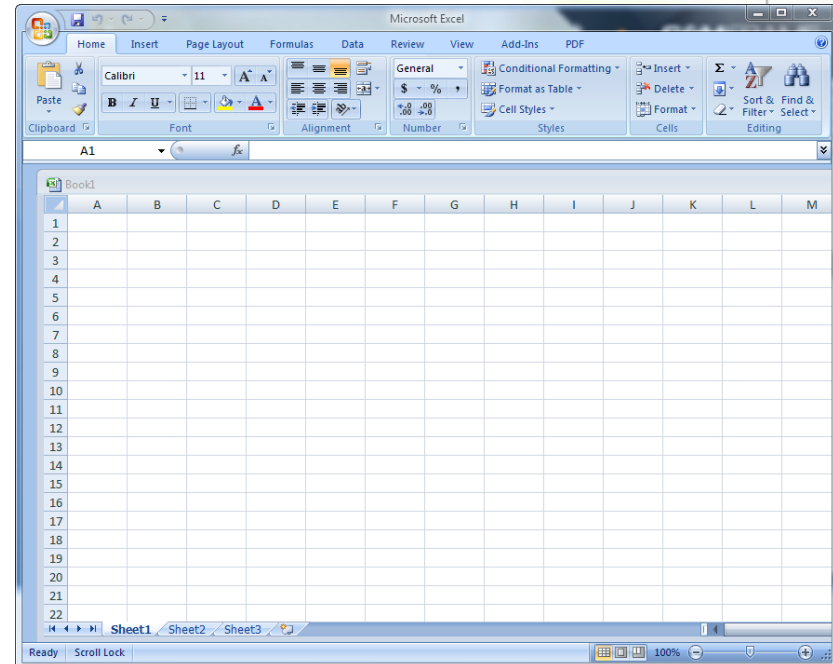


Reporting Services Architecture



Reporting Tools...

- What is the most widely used reporting tool at your Company?
- What is the most widely used data analysis tool at your Company?



Analysis Services with Excel Demo



Part 2 – Questions

...and Answers...

